

**BY ORDER OF THE CHIEF,  
NATIONAL GUARD BUREAU**



**MANPOWER STANDARD 21CIAR**

**28 AUGUST 2003**

***Manpower Standard***

***MAINTENANCE TRAINING***

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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Pages: 10

Distribution: F

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This Air National Guard Manpower Standard (ANGMS) quantifies the manpower required to accomplish the tasks described in the process oriented description (POD) for varying levels of workload in the 189th Airlift Wing whose mission it is to provide aircrew training for students from each branch of the military that flies the C-130 aircraft and from 27 foreign countries. This standard applies to the 189th Airlift Wing, Little Rock Air Force Base, Arkansas, and encompasses all major processes performed within the Maintenance Training function. It does not apply to any other units. This standard is applicable to peacetime operations only. The Air National Guard (ANG) is authority for the approval and publication of ANG Manpower Standards. Air Force (AF) and ANG directives contain policy and procedural guidance for the operation of the Logistics Training Element. This standard was developed in accordance with AF Instruction (AFI) 38-201, *Determining Manpower Requirements*, and AF Manual (AFMAN) 38-208, Volume 1, *Air Force Management Engineering Program (MEP) Processes*, and AFMAN 38-208, Volume 2, *Air Force Management Engineering Program (MEP) - Quantification Tools*. Send comments and suggested improvements on AF IMT 847, *Recommendation for Change of Publication*, through channels, to ANG, Management Engineering Branch (ANG/XPME/Operating Location TN [OLTN]), 106 Briscoe Drive, McGhee Tyson Air National Guard Base, TN 37777-6283.

**1. STANDARD DATA.**

1.1. Approval Date: 28 August 2003.

1.2. Man-hour Data Sources: The Operational Audit (historical record and technical estimate) technique was used to collect/determine man-hour/manpower data.

1.3. Standard Manpower Equation:  $Y = 23.66 + 0.6624X$ .

#### 1.4. Workload Factor.

1.4.1. Title: X= Maintenance Group Population Authorized.

1.4.2. Definition: The average monthly number of Unit Manpower Document (UMD) authorizations within the Maintenance Group.

1.4.3. Source: UMD (34 Command File Part B) maintained by ANG/XPMM.

#### 1.5. Points of Contact:

1.5.1. Functional: Col John J Samuhel, 189 MX/CC

1.5.2. Manpower: George W. Tatum III, ANG/XPME/OLTN

### 2. Application Instructions.

2.1. Equation: Apply the equation in Paragraph 1.3., to determine the required man-hours.

2.2. Man-Hour Availability Factor (MAF): Divide the resulting man-hours by the appropriate MAF/overload factor. The answer, rounded up, will quantify the required manpower.

2.3. Upper and Lower Extrapolation Limits:

2.3.1.  $Y_U = 178.610$ .

2.3.2.  $Y_L = 107.166$ .

**3. STATEMENT OF CONDITIONS.** The normal hours of operation for this function are 80 hours per two-week period. The alternate work schedule of eight nine hour days, and one eight hour day is the norm. No environmental, equipment, or facility conditions affect this Manpower Standard.

DANIEL JAMES III, Lieutenant General, USAF  
Director, Air National Guard

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION***References*

AFI 36-2201, *Developing, Managing, and Conducting Training*

AFI 38-201 *Determining Manpower Requirements*

AFMAN 38-208, Volume 1, *Air Force Management Engineering Program (MEP)-Process*

AFMAN 38-208, Volume 2, *Air Force Management Engineering Program (MEP)-Quantification Tools*

AFMS 00AA, *Standard Indirect Description*

*Abbreviations and Acronyms*

**AF** - Air Force

**AFMS** - Air Force Manpower Standard

**ANG** - Air National Guard

**ANGMS** - Air National Guard Manpower Standard

**ATS** - Automated Training System

**BETM** - Base Education Training Manager

**CDC** - Career Development Course

**CFETP** - Career Field Education And Training Plan

**EOC** - End-Of-Course

**FTD** - Field Training Detachment

**IMT** - Information Management Tool

**MAF** - Man-Hour Availability Factor

**MEP** - Management Engineering Program

**MPF** - Military Personnel Flight

**MSI** - Manpower Standards Implementation

**MTL** - Master Task Listing

**MTP** - Master Training Plan

**MX/CC** - Maintenance Group Commander

**OJT** - On-The-Job Training

**POD** - Process Oriented Description

**SAV** - Staff Assistance Visits

**SCR** - Special Certification Roster

**STS** - Standards

**UMD** - Unit Manpower Document

**UTA** - Unit Training Assembly

*Terms*

**Air National Guard Manpower Standard (ANGMS).** A numbered, specialized publication that quantifies manpower requirements for a work center, it also includes approved variances. See AFI 38-201.

**Man-Hour.** A unit of measuring work. It is equivalent to one person working at a normal pace for 60 minutes, two people working at a normal pace for 30 minutes, or similar combination of people working at a normal pace for a period of time equal to 60 minutes.

**Manpower Standard.** The basic tool used to determine the minimum level of manpower required to support a function. It is a quantitative expression that represents a work center's man-hour requirements in response to varying levels of workload.

**Process Oriented Description.** A format that shows work center responsibilities structured for easy measurement of work categories, tasks and subtasks.

## Attachment 2

**PROCESS ORIENTED DESCRIPTION  
LOGISTICS TRAINING**

**Table A2.1. Listing of Functional Processes.**

1.	TRAINING PROGRAM ADMINISTRATION GUIDANCE:
1.1.	COORDINATES AND DEVELOPS THE MASTER TRAINING PLAN (MTP). Assists work center supervisors in developing their MTP and their Master Task Listing (MTL).
1.2.	BRIEFS PERSONNEL:
1.2.1.	PROVIDES INITIAL ORIENTATION. Provides initial on-the-job training (OJT) orientation to incoming personnel on the concepts and objectives of the OJT program.
1.2.2.	EXAMINE TRAINING DOCUMENTATION. Evaluates training documentation, and ensures the Automated Training System (ATS) is updated.
1.2.3.	ADVISES OUTPROCESSING PERSONNEL. Reviews individuals training records and provides all training related products to the individual. Deletes the individual from the ATS.
1.3.	CONDUCTS STAFF ASSISTANCE VISITS (SAVs):
1.3.1	EVALUATES TRAINING PROGRAM. Interviews, reviews, advises, and consults on the overall training program.
1.3.2.	ENSURES COMPLIANCE WITH AIR FORCE STANDARDS. Ensures work center supervisors are highly involved with OJT and training is conducted and documented in accordance with established procedures. Confirms work center supervisors are accomplishing the necessary training to ensure the unit is mission ready.
1.3.3.	PREPARES SAV REPORT. Provides status report to Maintenance Group Commander (MX/CC) and Base Education Training Manager (BETM).
1.4.	MANAGES AUTOMATED TRAINING SYSTEM. Inputs, retrieves, update, corrects, and validates all information for the Logistics function. Ensures security is in place to avoid erroneous updates in the automated system used.
1.5.	ANALYZES REQUIREMENT AND COORDINATES TRAINING INFORMATION. Coordinates training with Military Personnel Flight (MPF) training function, disseminates information to maintenance work centers, and develops procedures for unit training documentation.

1.6.	MAINTAINS A PUBLICATIONS LIBRARY, APPLICABLE SPECIALTY TRAINING STANDARDS/CAREER FIELD EDUCATION AND TRAINING PLAN (STS/CFETP), AUDIO VISUAL LIBRARY, REQUIRED FORMS AND TRAINING EQUIPMENT. Procures training references, publications, and materials. Obtains and maintains necessary equipment for classroom training.
1.7.	DEVELOPS LOCAL OPERATING INSTRUCTIONS, POLICIES AND GUIDANCE. Develops materials to support OJT. Reviews work center lesson plans, and locally developed tests for currency and accuracy. Annually reviews operating instructions as they apply to local training policies.
2.	QUALIFICATION TRAINING PROGRAM:
2.1.	IDENTIFIES REQUIREMENT:
2.1.1.	PROCESSES TRAINING FORM.
2.1.2.	REVIEWS MAINTENANCE SUMMARY.
2.1.3.	REVIEWS AND COMPILES ANALYSIS STUDY.
2.1.4.	FORECASTS AND SUBMITS TRAINING REQUIREMENT.
2.2.	INPUTS QUALIFICATION TRAINING REQUIREMENT. Inputs documented training requirement information into ATS.
2.3.	SCHEDULES QUALIFICATION TRAINING. Obtains and distributes training forecast to work center supervisor; loads class update in the automated system used; executes and distributes class schedule and roster to affected maintenance activity.
3.	UPGRADE TRAINING PROGRAM:
3.1.	IDENTIFIES PERSONNEL. Identifies personnel requiring upgrade training.
3.2.	REVIEWS AND INITIATES AF 623, <i>ON-THE-JOB TRAINING RECORD</i> . Reviews trainee's AF 623 to ensure member has met all prerequisites for upgrade.
3.3.	ORDERS CAREER DEVELOPMENT COURSE (CDC), PROFESSIONAL MILITARY EDUCATION, AND SPECIALIZED TRAINING MATERIAL. Researches, identifies, and orders training material.
3.4.	INSTRUCTS TRAINEE. Apprises trainee on responsibilities outlined in AFI 36-2201, <i>Developing, Managing, and Conducting Training</i> .
3.5.	INPUTS OJT DATA. Extracts required information from AF 623 and Maintenance Personnel Listing. Inputs data into the automated system, using the OJT Record Routine.
3.6.	OBTAINS DETAILED OJT REPORT. Obtains the detailed OJT report and forwards to maintenance activity supervisor.

3.7.	SCHEDULES END-OF-COURSE (EOC) EXAMINATION TESTING. Orders and receives EOC examination notification from the Base Training Office and coordinates with test office, affected supervisor, and trainee to arrange for testing appointment. Performs as the Logistics Group Test Control Officer for mandatory and voluntary course examinations.
3.8.	INPUTS TEST RESULT. Inputs Volume Review Exercises and EOC test results from the Extension Course Institute into the automated system utilized, using the OJT Record Routine.
3.9.	RECLASSIFIES TRAINEE. Assists with the preparation and submission of classification action requests. Reviews all skill level upgrades to ensure compliance with directives, task qualification, documentation, and time requirements.
4.	UNIT TRAINING:
4.1.	REVIEWS AND PROCESSES ENLISTED SPECIALTY TRAINING ROSTER. Examines roster, coordinates and schedules appointment, annotates roster, disseminates information, and retains file copy.
4.2.	COMMUNICATES WITH BASE AGENCIES TO OBTAIN SPECILIZED TRAINING.
4.3.	SCHEDULES TRAINING. Schedules all recurring training. Maximizes use of all training resources by identifying and grouping personnel with similar training requirements.
4.4.	ASSISTS IN DEVELOPMENT OF COURSE OUTLINE. Assists work center supervisors in the development of course outline using applicable directive.
4.5.	CONDUCTS WEEKDAY TRAINING:
4.5.1.	PERFORMS CLASSROOM TRAINING. Administers classroom training for all assigned personnel.
4.5.2.	MAINTAINS TRAINING FACILITY. Ensures that established training facility area is adequate for conduct of training classes.
4.5.3.	MAINTAINS EQUIPMENT/SUPPLIES REQUIRED FOR TRAINING. Ensures equipment and supplies are adequate for the conduct of training needs. Maintains a library of training materials to support training requirements.
4.5.4.	RECORDS COURSE COMPLETION. Inputs course completion into automated system used.
5.	COURSE CONTROL MANAGEMENT:

5.1.	RUNS AND DISTRIBUTES TRAINING COURSE REPORT FOR WORK CENTER SUPERVISORY REVIEW.
5.2.	MAINTAINS FIELD TRAINING DETACHMENT (FTD) COURSE PLAN OF INSTRUCTION. Requests and schedules personnel for attendance at the applicable FTD.
5.3.	REQUESTS AND SCHEDULES TRAINING. Requests and schedules maintenance personnel for attendance to the applicable civilian contractor training course at either home unit or in a Temporary Duty status.
5.4.	WARTIME TASKING. Ensures work center supervisors have identified their wartime tasks and developed a lesson plan to provide training on these tasks during Unit Training Assemblies (UTAs).
6.	TEST PROGRAM MANAGEMENT:
6.1.	ASSISTS IN TEST DEVELOPMENT. Assists in test development from technical and procedural manuals and develops test answer key as required.
6.2.	MANAGES TEST PROGRAM. Schedules, administers, scores, and computes pass/fail rate for test program.
6.3.	DOCUMENTS TEST RESULT. Documents test result in the automated system used and individual training record.
6.4.	CONTROLS TEST. Assigns control number to each test, inventories test/answer key, and maintains test control number register for controlling, issue and disposition of test.
6.5.	MONITORS LOCALLY DEVELOPED TEST FOR CURRENCY AND ACCURACY. Coordinates with functional area to ensure a comprehensive annual review is conducted and updates the test as required.
7.	TRAINING STATUS REPORTING:
7.1.	REVIEWS TRAINING PROGRAM. Reviews training course table, training forecast, course status report, consolidated training report and OJT report.
7.2.	PREPARES TRAINING STATUS REPORT. Extracts data, summarizes and compiles training status report.
7.3.	BRIEFS STATUS OF TRAINING. Maintains status of overall training program and provides a monthly summary to the Logistics Commander (LG/CC) and squadron commanders.



8.	AIR FORCE OCCUPATIONAL SURVEY PROGRAM. Monitors Air Force Occupational Survey Program, ensuring surveys are issued to work center supervisors for dispersal to personnel. Instructs supervisors on procedures and importance of survey.
9.	SPECIAL CERTIFICATION ROSTER (SCR). Requests, updates, coordinates and distributes the SCR.
10.	PREPARES FOR UNIT TRAINING ASSEMBLY (UTA). Performs planning or scheduling task associated with preparation for UTA weekend. Publishes training schedule prior to UTA.
11.	QUARTERLY EDUCATION AND TRAINING MEETING:
11.1.	PREPARES FOR MEETING. Ensures the agenda and training materials are prepared for the meeting.
11.2.	CONDUCTS MEETING. Administers the quarterly training meeting with assigned work center supervisors, training monitors, trainers and certifiers.
11.3.	PREPARES MEETING MINUTES. Prepares and distributes minutes of the meeting to all work centers and the BETM.
12.	INDIRECT. Indirect work involves those tasks that are not readily identifiable with the work center's specific product or service. The major categories of standard indirect work are: Administers Civilian, Officer, and Enlisted Personnel; Directs Work Center Activity; Provides Administrative Support; Prepares for and Conducts/Attends Meeting; Administers Training; Manages Supplies; Maintains Equipment; and Performs Cleanup.

**Attachment 3****MANPOWER TABLE****A3.1. Standard Manpower Table**

<b>Air Force Specialty Title</b>	<b>AFSC</b>	<b>Grade</b>	<b>Manpower Requirement</b>	
Log Training Spec	3S2XX	Civ	1	2
Total			1	2

**NOTE.** AFSCs may be adjusted at the discretion of the Commander.